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after initial filing)	Group Art Unit	2155 Technology Center 210
	Examiner Name	Benjamin R. Bruckart
Total Number of Pages in this Submission: 43	Attorney Docket Number	AUS920000360US1
F	NCLOSURES (check all that	t annly)

### ENCLOSURES (check all that apply)

□ Fee Transmittal Form	☐ Assignment Papers (for an	□ After Allowance
□ Fee Attached	application)	Communication to Group
☐ Amendment/Reply	☐ Formal Drawings: sheets	☐ Appeal Communication to
□ After Final	☐ Licensing-related papers	Board of Appeals and
□ Affidavits /Declarations	□ Petition:	Interferences
☐ Extension of Time Request		☑ Appeal Communication to
☐ Express Abandonment	□ Petition to Convert to a	Group (Appeal Brief) (original
Request	Provisional Application	and 2 copies)
☐ Information Disclosure	□ Power of Attorney,	☐ Proprietary Information
Statement; references	Revocation, and/or Change of	□ Status Letter
☐ Certified Copy of Priority	Correspondence Address	☐ Certificate of Correction
Document(s)	☐ Terminal Disclaimer	☐ Fee Address Indication Form
□ Response to Missing	□ Request for Refund	□ Other Enclosure(s)
Parts/Incomplete Application	□ CD, Number of CD(s)	(please identify below)
☐ Response to Missing Parts		/
under 37 CFR 1.52 or 1.53		

### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

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Date:	May 24, 2004	
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315 South Beverly Drive, Suite 210 Beverly Hills, California 90212 (310) 556-7983		deficiency of fees, or credit any overpayment, to Deposit Account No. 09-0447

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Filing Date	August 24, 2000 RECEIV	ED
Inventor	D.R. Day et al. JUN 0 1 2	004
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METHOD OF PAYMENT (check one)		FEE CALCULATION (continued)	
1.   The Commissioner is hereby authorized to charge the indicated fees and/or credit any overpayments to Deposit Account Number: 09-0447  Charge any additional fee required under 37 CFR		3. ADDITIONAL FEES (large entity)  □ Surcharge- late filing fee or oath  □ Surcharge- late provisional filing fee or cover sheet	\$130 \$50
1.16 and 1.17	CIK	□ Non-English specification	\$130
□ Charge any deficiency or credit any overpays	ment	□ International type search report	\$40
,		□ Requesting publication of SIR prior to action	\$920
2. □ Payment enclosed:		□ Requesting publication of SIR after action	\$1840
☐ Check; Check No.		□ Extension for reply- first month	\$110
□ Money Order		□ Extension for reply- second month	\$420
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FEE CALCULATION		☐ Extension for reply- fourth month	\$1480
		☐ Extension for reply- fifth month	\$2010
1. BASIC FILING FEE		□ Notice of Appeal	\$330
Utility Filing Fee: Large Entity Fee Code 101 \$7	770.00	☑ Brief in Support of Appeal	\$330
Large Litary ree code 101 \$7	770.00	☐ Request for Oral Hearing	\$290
Fee Submitted: \$		☐ Utility issue fee	\$1330
		□ Petition to revive (unavoidable)	\$110
2. EXTRA CLAIMS FEES		□ Petition to revive (unintentional)	\$1330
Total Claims 20* x \$18= <u>\$</u>		□ Petitions to the Commissioner	\$130
Independent		□ Petitions related to provisional applications	\$50
Claims 3* x \$86= <u>\$</u>		□ Submission of Information Disclosure Statement	\$180
		□ Recordation of Assignment	\$40
Multiple Dependent \$290 <u>\$</u>		☐ Submission after final (37 CFR 1.129(a))	\$770
		□ Request for Continued Examination (RCE)	\$770
		□ Other:	
Subtotal <u>\$</u>		•	
		SUBTOTAL \$330	
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### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BOARD OF PATENT APPEALS AND INTERFERENCES

APPEAL BRIEF

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JUN 0 1 2004

Technology Center 2100

In re the Application of:

Don R. Day, et al. Serial No. 09/645,386 Filed: August 24, 2000 Attorney Docket No. AUS920000360US1

METHOD, SYSTEM, AND PROGRAM FOR GATHERING INDEXABLE METADATA ON CONTENT AT A DATA REPOSITORY

Submitted by:

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### I. REAL PARTY IN INTEREST

The entire right, title and interest in this patent application is assigned to real party in interest International Business Machines Corporation.

### II. RELATED APPEALS AND INTERFERENCES

Appellant is not aware of any other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

### III. STATUS OF THE CLAIMS

Claims 1-22, 22-40, and 42-57 are pending.

The final rejection of the claims 1-22, 224-40, and 42-57 in view of prior art is being appealed.

The appealed claims are as presented in the Amendment dated December 17, 2003.

Applicants submitted an amendment to the claims on May 14, 2004 following the filing of the Notice of Appeal on March 22, 2004 in order to change the dependency of claims 4, 24, and 42 to depend from pending claims 1, 21, and 39, so the amended claims no longer depend from canceled claims. This Amendment will overcome the indefiniteness rejection (35 U.S.C. §112, par. 2) and simplify issues on appeal. Accordingly, Applicants withdraw from consideration the indefiniteness rejection because the amendments to claims 4, 24, and 42 overcome this rejection.

#### IV. <u>STATUS OF AMENDMENTS</u>

Applicants submitted an amendment on May 14, 2004 to change the dependency of claims 4, 24, and 42 to depend from pending claims 1, 21, and 39 so they no longer depend from canceled claims. This Amendment will overcome the indefiniteness rejection (35 U.S.C. §112, par. 2) of claims 4, 24, and 42. The Examiner has not yet ruled on this amendment of claims 4, 24, and 42.

### V. <u>SUMMARY OF THE INVENTION</u>

The claims, in one aspect are directed to a method, system, and program for searching data repositories managed by different content providers to gather indexable metadata on content at addresses locations at the data repositories. (A collection tool 6 traverses web pages and gather indexable metadata. FIG. 2, Application, pg. 6, line 26 to pg. 7, line 14). Customizable settings capable of being customized by the content provider are accessed, wherein the customizable settings provide an address of at least one content page in the data repository and a parameter for the address locations. (The collection tool 6 determines how to traverse web pages from a search instruction file 20. FIG. 3, Application, pg. 9, line 10 to pg. 11, line 18) The content page at the addressable location at the content provider's data repository indicated in the customizable settings is accessed and the accessed content page is processed using the parameter provided for the addressable location of the accessed content page to generate output information. Metadata is generated indicating the generated output information for the accessed content page to add to an index of metadata for accessed addressable locations at the data repository. Customizable settings from the different content providers are accessed to generate the metadata for the accessed content pages and the index of metadata includes metadata on

content from the data repositories of the different content providers. (FIGs. 4-6 provides logic for the collection tool 6 to perform the search operation on URL pages and generate the metadata. Application, pg. 11, line 19 to pg.14, line 27).

In another aspect of the claims, the customizable settings include parameters and access methods unique to an arrangement of content in the content provider's data repository, wherein the access methods process the accessed content page using the parameter. (The collection tool 6 determines how to traverse web pages from a search instruction file 20. FIG. 3, Application, pg. 9, line 10 to pg. 11, line 18)

In further aspects of the claims, the parameters in the accessed customizable settings comprise query terms for at least one included addressable location. (The search instruction file 20 has query terms components 52 that provides a list of search terms. FIG. 3, Application, pg. 9, lines 10-20) For each provided addressable location for which there are query terms, the provided query terms are used at the provided addressable location to obtain query results. Metadata is generated from the obtained query results to add to the index of metadata for accessed addressable locations at the data repository. (FIG. 4, blocks 112-120 provide logic for using query terms to obtain query results. Application, pg. 12, lines 8-23).

In further aspects of the claims, the accessed customizable settings provide qualifiers for at least one search term. For each query term having at least one qualifier, a determination is made as to whether the query results for the query term satisfy each qualifier for the query term, wherein the metadata for the query result is generated if the query result satisfies each qualifier for the query term that generated the query result. A non-qualifying is performed action for each query result that does not satisfy each qualifier, such as not including metadata for the query

result in the index. (FIG. 4, blocks 118-120 provide logic to apply qualifiers to the query terms to determine whether the query results are non-qualifying. Application, pg. 12, lines 11-23).

In further aspects of the claims, the parameters in the accessed customizable settings further include a password for at least one provided addressable location. (The search instruction file 20 has passwords 56 (FIG. 3). Application, pg. 9, lines 23-25) In such case, the provided password is used to access the content page at the indicated addressable location for which the password is provided. (FIG. 4, blocks 106 and 108 provide logic to apply any passwords to access the page to process. Application, pg. 12, lines 5-8)

In yet further aspects of the claims, the parameters in the accessed customizable settings further include a recursive search setting indicating whether to search hypertext links to linked addressable locations included in the accessed content page. (The search instruction file 20 has a recursive search setting 58 (FIG. 3). Application, pg. 9, lines 25 to pg. 10, line 2). In such case, a content page is accessed at each linked addressable location included if the recursive search setting indicates to recursively search linked addressable locations, wherein metadata is generated for each content page recursively accessed at the linked addressable locations in the accessed content page. (FIG. 4, blocks 154-158 provide logic to recursively process pages. Application, pg. 14, lines 20-27)

In further aspects of the claims, the accessed customizable settings further provide prohibited addressable locations at the data repository, wherein metadata is not generated for each content page at a linked addressable location that is one indicated prohibited address location. (The search instruction file 20 has prohibited URLs 60 (FIG. 3). Application, pg. 10, lines 3-6)

In yet further aspects of the claims, the accessed customizable settings further indicate validation checking programs. (The search instruction file 20 has validation checkers 62 (FIG. 3). Application, pg. 10, line 6 to pg. 11, line 8) Each validation checking program indicated in the accessed customizable settings is executed against each accessed content page and a validation output result is generated with the validation checking program for each accessed content page with each validation checking program describing characteristics of the content page. The metadata from the validation output result is generated to add to the index of metadata for accessed addressable locations at the data repository. (FIG. 5, blocks 124-132 provide logic to use the validation check program to check the accessed pages. Application, pg. 12, line 24 to pg. 13, line 13)

In further aspects of the claims, the accessed customizable settings further indicate at least one parameter to use with at least one validation checking program. (The search instruction file 20 has validation check parameters 64 (FIG. 3). Application, pg. 10, lines 6-15)

The at least one parameter is used when executing the validation checking program, wherein the validation output result further indicates characteristics of the content page related to the at least one parameter used with the validation checking program. (FIG. 5, blocks 124-132 provide logic to use the validation check program and parameters to check the accessed pages.

Application, pg. 12, line 24 to pg. 13, line 13)

In yet further aspects of the claims, the parameters in the accessed customizable settings further indicate at least one qualifier to use with at least one validation checking program. (The search instruction file 20 (FIG. 3) has validation checker qualifiers 66. Application, pg. 10, lines 16 to pg. 11, line 8) A determination is made as to whether the validation output result satisfies the at least one qualifier provided with the validation checking program producing the output

result, wherein metadata for the output result is included in the index if the output result satisfies the qualifier is not included in the index if the validation output result does not satisfy the qualifier. (FIG. 5, blocks 124-132 provide logic to use the validation check program and qualifiers to check the accessed pages. Application, pg. 12, line 24 to pg. 13, line 13)

In further aspects of the claims, a determination is made of a format of the accessed content page and one of a plurality parsers capable of parsing the determined format is selected. The content page is processed using the selected parser, wherein the metadata to add to the index is generated from the parsed content page. (The collection tool 6 has parsers 22a, 22b...22n to parse and gather data. FIG. 2, pg. 7, lines 6-13).

In further aspects of the claim, a collection tool is distributed to content providers capable of accessing and generating metadata for content provider data repositories using the accessed customizable settings. Metadata gathered from multiple content providers using the collection tool is collected to gather metadata on their data repositories. Further, the collected metadata may be commercialized. (Application, pg. 15, lines 18-26)

#### VI. <u>ISSUES</u>

A concise statement of the issues presented for review is as follows:

Whether the Examiner is correct in rejecting claims 1, 2, 4, 9, 10, 18, 21, 22, 24, 29, 30, 38, 39, 40, 42, 47, 48, and 56 as obvious (35 U.S.C. §103(a)) over "Koster" ("A Method for Web Robots Control", Internet Draft by Network Working Group) in view of Emens (U.S. Patent No. 6,434,548).

Whether the Examiner is correct in rejecting claims 5-8, 25-28, and 43-46 as obvious (35 U.S.C. §103(a)) over Koster in view of Emens and further in view of Bowen (U.S. Patent No. 6,094,649).

Whether the Examiner is correct in rejecting claims 11-14, 31-34, 49-52 as obvious (35 U.S.C. §103(a)) over Koster in view of Emens and further in view of Welter (U.S. Patent No. 6,138,157).

Whether the Examiner is correct in rejecting claims 15, 16, 35, 36, 53, and 54 as obvious (35 U.S.C. §103(a)) over Koster in view of Emens and further in view of Shklar (U.S. Patent No. 5,983,267).

Whether the Examiner is correct in rejecting claims 17, 37, and 55 as obvious (35 U.S.C. §103(a)) over Koster in view of Emens, Shklar and Barr (U.S. Patent No. 5,873,076).

Whether the Examiner is correct in rejecting claims 19, 20, and 57 as obvious (35 U.S.C. §103(a)) over Koster in view of Emens and Walker ("Data Warehousing and the Web (Internet/Web/Online Services Information)", by Richard W. Walker,

### VII. GROUPING OF THE CLAIMS

Pursuant to 37 CFR 1.192(c)(7), Applicants submit that there are the following groups of claims. The claims in each group are subject to different rejections. Further, the claims in each group do not fall together:

<u>Group 1</u>: 1, 2, 4, 9, 10, 18, 21, 22, 24, 29, 30, 38, 39, 40, 42, 47, 48, and 56.

Group 2: 5-8, 25-28, 43-46.

Group 3: 11-14, 31-34, 49-52.

Group 4: 15, 16, 35, 36, 53, and 54.

Group 5: 17, 37, and 55.

Group 6: 19, 20, and 57.

## VIII. ARGUMENT: THE REJECTION OF THE CLAIMS 1-22, 24-40, AND 42-57 AS OBVIOUS OVER PRIOR ART SHOULD BE REVERSED

A. Group I Claims 1, 2, 4, 9, 10, 18, 21, 22, 24, 29, 30, 38, 39, 40, 42, 47, 48, and 56

are Patentable Over Koster in view of Emens

Claim 1 recites a method for searching data repositories managed by different content providers to gather indexable metadata on content at addresses locations at the data repositories, comprising: accessing customized settings capable of being customized by the content provider, wherein the customizable settings provide an address of at least one content page in the data repository and a parameter for the address locations; accessing the content page at the addressable location at the content provider's data repository indicated in the customizable settings; processing the accessed content page using the parameter provided for the addressable location of the accessed content page to generate output information; and generating metadata indicating the generated output information for the accessed content page to add to an index of metadata for accessed addressable locations at the data repository, wherein customizable settings from the different content providers are accessed to generate the metadata for the accessed content pages, and wherein the index of metadata includes metadata on content from the data repositories of the different content providers.

The Examiner cited pg. 3, par. 1 as teaching the claim requirement of processing the accessed content page using the parameter provided for the addressable location of the accessed content page to generate output information. (Final Office Action, pg. 3) Applicants traverse.

The cited pg. 3, par. 1 of Koster discusses providing instructions to robots traversing web pages, and specifies an access method to retrieve these instructions before visiting URLs on the site. The web robots consult the "robot.txt" instructions to determine whether they may access the pages of indicated Universal Resource Locators (URLs) on the site.

The cited Koster does not teach or suggest accessing a content page at an addressable location and processing the content page using a parameter provided by the content provider in the customizable settings to generate output information that is indicated in the metadata.

Instead, the cited Koster considers the "robot.txt" instructions to determine whether the robot is allowed to access a particular address, i.e., URL, such as discussed on pg. 4, pars. 2-5.

Applicants submit that Koster does not teach processing a content page using an accessed parameter provided for the accessed page to generate output information. In fact, the cited Koster teaches away from this requirement because Koster mentions that the "robot.txt" information is only used to indicate to a robot whether the robot may access the page. This teaches away from providing information the robot uses when processing the accessed page to generate output information as claimed. The cited Koster says nothing about how the page is processed once the page is accessed, or using a parameter to process an accessed page to generate output information as claimed.

The Examiner cited pg. 3, par. 1, of Koster as teaching the claim requirement that customizable settings from the different content providers are accessed to generate the metadata for the accessed content pages, and wherein the index of metadata includes metadata on content from the data repositories of the different content providers. (Final Office Action, pgs. 3-4)

The cited page 3 discusses providing instructions that instruct robots whether they are allowed to access a page. Nowhere does the cited page 3 anywhere teach or suggest that

customizable settings from different content providers are accessed to generate the metadata for the accessed content pages. As discussed, the cited Koster does not teach or suggest using customizable settings, from one or many content providers, to process an already accessed content page to generate output information. Instead, the cited Koster discusses how the web site may provide instructions indicating which web pages are not accessible to the robot.

Nowhere is there any disclosure of providing parameters to use to process the accessed content page to generate output information indicated in the metadata.

The Examiner cited Emens for the concept of gathering and indexing metadata, but did not cite Emens as teaching the claim requirements of processing the accessed content page using the parameter provided nor for the claim requirement that customizable settings from the different content providers are accessed to generate the metadata for the accessed content pages, and wherein the index of metadata includes metadata on content from the data repositories of the different content providers. (Final Office Action, pg. 4) For instance, the cited col. 1, lines 17-23 of Emens discusses keeping metadata for a repository up to date, and that one solution is to periodically exhaustively search (recrawl) the stored resources and summarize and update summary data. The cited col. 1, lines 45-458 the need for a reduction of resources required for Internet search engines and their data retrieval and organization tasks.

Nowhere does the cited Emens teach or address the deficiencies of the cited Kostner with respect to teaching the claim requirements of processing the accessed content page using the parameter provided and that customizable settings from the different content providers are accessed to generate the metadata for the accessed content pages.

Accordingly, Applicants request that the rejection of claim 1 be reversed because the cited references do not teach or suggest, alone or in combination, the requirements of these

claims. Applicants further submit that claims 21 and 39 are patentable over the cited art for the reasons discussed with respect to claim 1 because claims 21 and 39 substantially include the requirements of claim 1 in system and program format, and thus stand or fall with claim 1.

Claims 2, 4, 9, 10, 18, 22, 24, 29, 30, 38, 40, 42, 47, 48, and 56 are patentable over the cited art because they depend from one of claims 1, 21, and 39, which are patentable over the cited art, and thus stand with respect to the independent claims. Moreover, dependent claims 2, 9, 22, 29, 40, and 47 provide additional ground of patentability over the cited art for the reasons discussed below and thus do not fall with the base claims 1, 21, and 39.

Claims 2, 22, and 40 depend from claims 1, 21, and 39 and further require that the customizable settings include parameters and access methods unique to an arrangement of content in the content provider's data repository, wherein the access methods process the accessed content page using the parameter. The Examiner cited pg. 4, pars. 3-5 of Koster as teaching the additional requirements of these claims. (Final Office Action, pg. 4) Applicants traverse.

The cited pg. 4 of Koster discusses information in the robot.txt file of "disallow" and "allow" instructions indicating whether or not a robot may access a page. Nowhere does the cited pg. 4 anywhere teach or suggest that the parameters and access methods are unique to the arrangement of content in the content provider's data repository. Instead, the cited access methods of Koster, indicate whether to disallow or allow the robot to access page, and thus are not unique to the arrangement of content. In fact, the cited access methods of "disallow" and "allow" are non-unique and the same across content providers, not "unique" as claimed.

Moreover, claims 2, 22, and 50 further require that the access method process the accessed content page using the parameter. The Examiner found that the "allowing" and

"disallowing" on pg. 4 of Koster are access methods. (Final Office Action, pg. 2) However, nowhere does the cited Koster anywhere teach or suggest the claim requirements that these "disallow" and "allow" access methods process the accessed content page using the parameter as claimed. In fact, the cited access methods are not used to process a content page, but just to indicate to the robot whether access is permitted. The claims, on the other hand, require that the access method process the accessed content page, which the cited methods cannot do because they comprise information indicating whether the page in fact can be accessed, not processing the page after the access.

Accordingly, Applicants request that the rejection of claims 2, 22, and 40 over the cited Koster be reversed because the cited Koster does not disclose the additional claim requirements of these claims for which Koster was cited.

Claims 9, 29, and 47 recites that the parameters in the accessed customizable settings further include a recursive search setting indicating whether to search hypertext links to linked addressable locations included in the accessed content page. A content page is accessed at each linked addressable location included if the recursive search setting indicates to recursively search linked addressable locations, wherein metadata is generated for each content page recursively accessed at the linked addressable locations in the accessed content page.

The Examiner cited pg. 2, Introduction of Koster as teaching the additional requirements of claims 9, 29, and 47. (Final Office Action, pg. 4) Applicants traverse.

The cited pg. 2 discusses how a web robot recursively retrieves documents that are referenced. Although the cited pg. 2 discusses how a web robot performs recursive searches, nowhere does the cited pg. 2 anywhere teach or suggest that the customizable settings of the content provider include a recursive search setting indicating whether to search hypertext links at

an addressable location. Thus, nowhere does the cited pg. 2 provide a setting to allow the content provider to control whether the robot will recursively search the site for the content page at each linked addressable location.

The Examiner further cited pg. 4, pars. 3-5 of Koster as teaching the requirement that the parameters include a recursive search setting. (Final Office Action, pg. 10) The cited pg. 4 discusses instructions to "allow" or "disallow" a robot access to a page. Nowhere does the cited col. 4 anywhere teach or suggest the claimed a recursive search setting indicating whether to search links included in the accessed content page.

The cited col. 1, lines 17-22 of Emens mentions recrawling stored resources to update the metadata on pages in the repository. However, nowhere does the cited Emens teach or suggest that the customizable settings of the content provider include a recursive search setting indicating whether to search hypertext links at an addressable location.

Accordingly, Applicants request that the rejection of claims 9, 29, and 47 over the cited Koster be reversed because the cited Koster does not disclose the additional claim requirements of these claims for which Koster was cited.

Claims 18, 38, and 56 depend from claims 1, 21, and 39 and further require distributing a collection tool to content providers capable of accessing and generating metadata for content provider data repositories using the accessed customizable settings and collecting metadata data gathered from multiple content providers using the collection tool to gather metadata on their data repositories.

The Examiner cited pg. 2, par. 3 (Introduction) of Koster as teaching the claim requirement of distributing a collection tool to content providers capable of accessing and

generating metadata for content provider data repositories using the accessed customizable settings. (Final Office Action, pg. 4). Applicants traverse.

The cited pg. 2 of Koster discusses how web robots recursively retrieve all documents referenced on a web page, and are used for maintenance and indexing purposes by people other than the administrators of the site being visited.

Nowhere does the cited pg. 2 of Koster anywhere teach, suggest or mention distributing a collection tool to content providers capable of accessing and generating metadata for content provider data repositories using the accessed customizable settings. Instead, the cited pg. 2 discusses the operation of web robots in general, and nowhere suggests the claimed operation of distributing a collection tool to content providers capable of accessing and generating metadata for content provider data.

The Examiner cited col. 1, lines 17-22 of Emens as teaching the claim requirement of collecting metadata data gathered from multiple content providers using the collection tool to gather metadata on their data repositories. (Final Office Action, pg. 4) Applicants traverse.

The cited col. 1 of Emens discusses the challenge of keeping metadata summarizing external data resources up to date. The cited Emens mentions that one solution is to periodically exhaustively search (recrawl) the stored resources, summarize them and then update the summary data.

Although the cited Emens discusses collecting data by exhaustively searching stored resources, such as by a web robot crawling, nowhere does the cited Emens anywhere teach, suggest or even mention the claim requirement of collecting metadata data gathered from multiple content providers using the collection tool to gather metadata on data repositories.

Nowhere does the cited Emens and Koster teach or suggest collecting data from multiple content providers with a collection tool distributed to the content providers.

Accordingly, Applicants request that the rejection of claims 18, 38, and 56 over the cited Koster be reversed because the cited Koster does not disclose the additional requirements of these claims for which Koster was cited.

### B. Group II Claims 5-8, 25-28, 43-46 are Patentable Over Koster in view of Emens and Bowen

Claims 5-8, 25-28, 43-46 are patentable over the cited art because they depend from claims 1, 22, and 39, which are patentable over the cited art for the reasons discussed above, and thus stand with claims 1, 22, and 39. However, the Group II claims do not fall with base claims 1, 22, and 39 because they provide additional grounds of patentability over the cited art for the reasons discussed below.

Claims 5, 25, and 43 depend from claims 1, 22, and 39 and further require that the parameters in the accessed customizable settings comprise query terms for at least one included addressable location. These claims further require that for each provided addressable location for which there are query terms, using the provided query terms at the provided addressable location to obtain query results. Metadata is generated from the obtained query results to add to the index of metadata for accessed addressable locations at the data repository.

The Examiner cited col. 4, lines 30-37 of Bowen as teaching the claim requirement that the parameters in the accessed customizable settings comprise query terms for at least one included addressable location. (Final Office Action, pg. 5) Applicants traverse.

The cited col. 4 of Bowen discusses a structured database having data items on which keyword searches may be performed and a document, such as a web page, outside of the structured database having textual representations of a selected item's data. These documents are then indexed by creating an index outside of the database.

Nowhere does the cited col. 4 of Bowen teach or suggest parameters in customizable settings, which are customizable by a content provider, that comprise query terms for at least one addressable location that may be used to obtain query results from the content. Instead, the cited col. 4 discusses documenting data items in a database in a web page external to the database, where the documents are indexed outside of the database. Nowhere does the cited col. 4 anywhere teach or suggest that a parameter in customizable settings customized by the content provider comprise query terms used to process an accessed content page to obtain query results.

Although the cited col. 4 discusses documents providing information on selected items in a database, nowhere does the cited col. 4 anywhere teach or suggest using query terms in customizable settings to process accessed pages at addressable locations to obtain query results, where the query results are generated in metadata for the addressable locations.

Applicants further submit, that if one modified the teachings of Koster and Emens with the cited Bowen as the Examiner proposes, such proposed modification still does not teach or suggest the claim requirements. The cited Koster and Emens discuss web crawling and indexing web pages. The cited Bowen discusses indexed documents having textual representations of selected data items in a database. Nowhere does this cited combination teach or suggest customizable settings having query terms that are used to process accessed content page to obtain query results to include in the index of metadata for the content page. Nowhere is there any suggestion or mention anywhere in the cited references of providing query terms in customizable

settings that are used to process content pages in the data repository of the content provider to generate metadata for the content pages. Instead, the cited Bowen discusses documenting selected data items in a database by creating a document, such as a web page, that has a textual representation of the selected item's data.

Accordingly, Applicants request that the rejection of claims 5, 25, and 43 over the cited Koster be reversed because the cited Koster does not disclose the additional claim requirements of these claims for which Koster was cited.

Claims 6, 26, and 44 depend from claims 5, 25, and 54 and further require that the accessed customizable settings provide qualifiers for at least one search term. These claims further require for each query term having at least one qualifier, determining whether the query results for the query term satisfy each qualifier for the query term, wherein the metadata for the query result is generated if the query result satisfies each qualifier for the query term that generated the query result; and performing a non-qualifying action for each query result that does not satisfy each qualifier.

The Examiner cited col. 12, lines 9-15 of Bowen as teaching the claim requirement that the accessed customizable settings further provide qualifiers for at least one search term. (Final Office Action, pg. 5) Applicants traverse.

The cited col. 12 mentions that documents having instances of the keyword may be supplied to the search engine for transmission to the user, where the documents may have been created as part of the indexing phase or in response to a keyword search.

Nowhere in this cited col. 12 is there any teaching or mention of the claim requirement that the accessed customizable settings further provide qualifiers for at least one search term, where the customizable settings have parameters used to process the accessed content page to

generate output information. Instead, the cited col. 12 discusses documents having instances of a keyword that are supplied to a search engine. There is no mention of qualifiers for search terms as claimed.

The Examiner cited col. 10, lines 37-48 of Bowen as teaching the claim requirement that for each query term having at least one qualifier, determining whether the query results for the query term satisfy each qualifier for the query term. The metadata for the query result is generated if the query result satisfies each qualifier for the query term that generated the query result. (Final Office Action, pg. 5)

The cited col. 10 mentions that the documents generated for selected data items have a comprehensive textual representation of each selected item's data, where data values appear separately in the document, such as data values tat may be used as keywords. Nowhere does the cited col. 10 anywhere suggest or even mention determining whether query results satisfy a qualifier included in customizable settings capable of being customized by a content provider. The cited col. 10 discusses providing comprehensive information on selected data items in a database, and nowhere suggests or mentions qualifying query results as claimed.

Further, nowhere does the cited col. 10 anywhere teach or suggest that the metadata data for a query result is generated if the query result satisfies the qualifier for the query term.

Instead, the cited col. 10 just discusses how the document should include substantially every data value that is meant to be a keyword. Again, nowhere is there any teaching or suggestion of including in metadata query results that satisfy each qualifier provided for a query term in customizable settings that may be customized by a content provider.

Moreover, Applicants submit that the cited col. 10 does not teach or suggest including query results into metadata. Instead, the cited col. 10 adds the selected item's data to the document, not query results as claimed.

Accordingly, Applicants request that the rejection of claims 6, 26, and 44 over the cited art be reversed because the cited Bowen does not disclose the additional claim requirements of these claims for which Bowen was cited.

Claims 7, 27, and 45 depend from claims 6, 26, and 44 and further require the non-qualifying action comprises not including metadata for the query result in the index. The Examiner cited col. 10, lines 49-52 of Bowen as teaching the additional requirements of these claims. (Final Office Action, pg. 5) Applicants traverse for the following reasons.

The cited col. 10 mentions that common terms from the data items included in the document may be omitted from the comprehensive representation of the data values. Nowhere does the cited col. 10 anywhere disclose not including query results that do not qualify. Instead, the cited col. 10 just discusses not including certain representations of a selected item's data in a document, not query results as claimed.

Accordingly, Applicants request that the rejection of claims 7, 27, and 45 over the cited art be reversed because the cited Bowen does not disclose the additional claim requirements of these claims for which Bowen was cited.

Claims 8, 28, and 46 depend from claims 1, 22, and 39 and further require that the parameters in the accessed customizable settings further include a password for at least one provided addressable location, and using the provided password to access the content page at the indicated addressable location for which the password is provided.

The Examiner cited col. 14, line 66 to col. 15, line 10 of Bowen as teaching the additional requirements of these claims. Applicants traverse for the following reasons.

The cited cols. 14-15 mention information needed to connect a tool to a database, including a file name, file path, password, etc. The tool is used to create dictionary definitions.

Nowhere do the cited cols. 14-15 anywhere teach or suggest that customizable settings that are capable of being customized by the content provider include a password that is used to access the page from which the metadata will be generated. Further, the cited cols. 14-15 concerns a password used to access a database. Nowhere does the cited cols. 14-15 anywhere teach or suggest providing a password that is used to access content pages at indicated addressable locations in the customizable settings.

Accordingly, Applicants request that the rejection of claims 8, 28, and 46 over the cited art be reversed because the cited Bowen does not disclose the additional claim requirements of these claims for which Bowen was cited.

### C. Group III Claims 11-14, 31-34, 49-52 are Patentable Over Koster in view of Emens and Welter

Claims 11-14, 31-34, 49-52 are patentable over the cited art because they depend from claims 1, 22, and 39, which are patentable over the cited art for the reasons discussed above, and thus stand with claims 1, 22, and 39. However, the Group II claims do not fall with base claims 1, 22, and 39 because they provide additional grounds of patentability over the cited art for the reasons discussed below.

Claims 11, 31, and 49 depend from claims 1, 22, and 39 and further require that the accessed customizable settings further indicate validation checking programs, and executing each

validation checking program indicated in the accessed customizable settings against each accessed content page; generating a validation output result with the validation checking program for each accessed content page with each validation checking program describing characteristics of the content page; and generating metadata from the validation output result to add to the index of metadata for accessed addressable locations at the data repository.

The Examiner cited col. 2, lines 23-26 and 65-67 of Welter as teaching the claim requirement that the accessed customizable settings further indicate validation checking programs and executing each validation checking program indicated in the accessed customizable settings against each accessed content page. (Final Office Action, pg. 6)

The cited col. 2 of Welter discusses a method for testing web sites, that communicates with the site and analyzes the HTML received from the site. The testing computer maintains a test configuration file stored in memory including the series of test inquires for the web site to be tested.

Nowhere does this cited col. 2 anywhere teach or suggest the claim requirements that the customizable settings, capable of being customized by a content provider, indicate validation checking programs that are executed against the content page as part of generating metadata for the content page. Thus, although the cited col. 2 concerns testing a web site, there is no teaching or suggestion in Welter or any other cited art of indicating in customizable settings, customizable by a content provider, validation checking programs that are executed to process content pages to generate metadata for the content pages.

The Examiner cited pg. 3, par. 4 and pg. 4, par. 3 of Koster as teaching the claim requirement of executing each validation checking program indicated in the customizable settings against each accessed content page. The cited Koster discusses "allow" and "disallow"

Koster nor Welter is there any teaching or suggestion of applying a validation checking program to execute against the web pages of Koster. Thus, the Examiner is proposing a modification that is nowhere taught or suggested in the cited art, and thus is improper. Applicants submit that the Examiner is using inappropriate hindsight to justify the modification.

Moreover, even if one were to modify Koster with the cited teachings of Welter, such proposed modification would not teach or suggest the requirements of claims 11, 31, and 44. Modifying Koster with Welter provides a method for testing the web pages of Koster and analyzing the web pages for errors. Nowhere is there any teaching or suggestion in this combination of references to indicate in customizable settings that may be modified by the content provider a validation checking program that may be used to generate validation output to include in the index of metadata for the content pages in the data repository of the content provider. Further, nowhere is there any teaching or suggestion in the cited art of having the web robots of Koster execute a validation checking program.

Accordingly, Applicants request that the rejection of claims 11, 31, and 49 over the cited art be reversed because the cited art does not disclose the additional claim requirements of these claims for which Welter, Koster and other references were cited.

Claims 12, 32, and 50 depend from claims 11, 31, and 49 and further require that the accessed customizable settings further indicate at least one parameter to use with at least one validation checking program, and require using the at least one parameter when executing the validation checking program. The validation output result further indicates characteristics of the content page related to the at least one parameter used with the validation checking program.

The Examiner cited col. 6, lines 19-23, and FIG. 4B, tag 126 of Welter as teaching the additional requirements of these claims. (Final Office Action, pg. 6) Applicants traverse.

The cited col. 6 mentions that data in a field is used to fill in field parameters to provide a URL of an HTML page to monitor and test. (See also, col. 5, lines 49-55) Although the cited col. 6 discusses how to indicate a web page to monitor, nowhere is there any teaching or suggestion of the claim requirement of a parameter in customizable settings, capable of being customized by a content provider, to use when executing a validation checking program to indicate characteristics of the content page related to the parameter. The cited col. 6 nowhere discusses such a parameter in customizable settings to use to generate validation output related to the parameter.

Accordingly, Applicants request that the rejection of claims 12, 32, and 50 over the cited art be reversed because the cited art does not disclose the additional claim requirements of these claims for which Welter, Koster and other references were cited.

Claims 13, 33, and 51 depend from claims 11, 31, and 49 and further require that the parameters in the accessed customizable settings further indicate at least one qualifier to use with at least one validation checking program, and determining whether the validation output result satisfies the at least one qualifier provided with the validation checking program producing the output result. The metadata for the output result is included in the index if the output result satisfies the qualifier.

The Examiner cited col. 2, lines 28-33, col. 3, lines 11-16, and col. 4, lines 40-47 of Welter as teaching the additional requirements of claims 13, 33, and 51. (Final Office Action, pg. 6) Applicants traverse for the following reasons.

The cited col. 2 discusses a method for communicating with an HTML from a web site to check the HTML for errors and storing the results in a database. The cited col. 3 mentions the testing of changeable or dynamic features of the web site to aid in the correction of detected errors. The cited col. 4 discusses a menu to allow the user to run the web site tester or analyze the results of previous tests.

Although the cited columns of Welter discuss how to test a web site for errors, nowhere does the cited Welter anywhere teach or suggest the claim requirement that parameters in customizable settings, that may be customized by th content provider, indicate at least one qualifier to use with a validation checking program to determine whether the validation output satisfies the output, so that the output result is included in the metadata if the validation output satisfies the qualifier. The cited Welter concerns testing a web site for errors, not qualifying validation output so that qualified validation output is added to the index of metadata on the content pages. There is no mention in the cited Welter anywhere of qualifying output to determine whether the output should be added to an index of metadata on the content.

Accordingly, Applicants request that the rejection of claims 13, 33, and 51 over the cited art be reversed because the cited art does not disclose the additional claim requirements of these claims for which Welter, Koster and other references were cited.

Claims 14, 34, and 52 depend from claims 13, 33, and 51 and further require that metadata for the content page at the addressable location is not included in the index if the validation output result does not satisfy the qualifier. The Examiner cited pg. 2, par. 3 of Koster as teaching the additional requirements of these claims. (Final Office Action, pg. 6) Applicants traverse.

The cited pg. 2 of Koster discusses how web robots traverse web pages for indexing purposes. Nowhere does the cited Koster anywhere teach or suggest that metadata for a content page is not included in the index if the validation output, generated from a validation program indicated in the customizable settings, does not satisfy the qualifier. There is no mention in the cited Koster of determining whether output satisfies a qualifier before adding the output for that page accessed by the web robot to the index of metadata.

Accordingly, Applicants request that the rejection of claims 14, 34, and 52 over the cited art be reversed because the cited art does not disclose the additional claim requirements of these claims for which Welter, Koster and other references were cited.

## D. Group IV Claims 15, 16, 35, 36, 53, and 54 are Patentable Over Koster in view of Emens and Shklar

Claims 15, 16, 35, 36, 53, and 54 are patentable over the cited art because they depend from claims 1, 22, and 39, which are patentable over the cited art for the reasons discussed above, and thus stand with claims 1, 22, and 39. Accordingly, Applicants request that the rejection of claims 15, 16, 35, 36, 53, and 54 over the cited art be reversed.

# E. Group V Claims 17, 37, and 55 are Patentable Over Koster in view of Emens, Shklar, and Barr

Claims 17, 37, and 55 are patentable over the cited art because they depend from base claims 1, 22, and 39, which are patentable over the cited art for the reasons discussed above, and thus stand with claims 1, 22, and 39. Accordingly, Applicants request that the rejection of claims 17, 37, and 55 over the cited art be reversed.

## F. Group VI Claims 19, 20, and 57 are Patentable Over Koster in view of Emens, Shklar, and Barr

Claims 19, 20, and 57 are patentable over the cited art because they depend from base claims 1, 22, and 39, which are patentable over the cited art for the reasons discussed above, and thus stand with claims 1, 22, and 39. Further, claim 20 does not fall with base claims 1, 22, and 39 because claim 20 provides additional grounds of patentability over the cited art for the reasons discussed below.

Claim 20 depends from claim 18 and further requires receiving an electronic subscription from content providers to use the collection tool and provide metadata. The Examiner cited pg. 3, par. 7 of Walker as teaching the additional requirements of claim 20. (Final Office Action, pg. 8) Applicants traverse.

The cited pg. 3 mentions that publish and subscribe technologies will be used to deliver new, critical information from the data warehouse to the user's desktop. Although the cited Walker discusses subscription technologies, nowhere does the cited Walker anywhere teach or suggest receiving an electronic subscription from content providers to use the collection tool and provide metadata. The particular claimed electronic subscription is nowhere taught in the cited art.

Accordingly, Applicants request that the rejection of claim 20 be reversed because the cited art does not disclose the additional claim requirements of these claims for which Walker, Koster, and Emens were cited.

### IX. <u>CONCLUSION</u>

The rejections to all pending claims 1-22, 24-40, and 42-57 in the Final Office Action is improper and should be reversed.

Respectfully submitted,

By: / / //

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#### X. APPENDIX

The claims on appeal are as follows:

#### **Listing of Claims**

1. (Previously Presented) A method for searching data repositories managed by different content providers to gather indexable metadata on content at addresses locations at the data repositories, comprising:

accessing customizable settings capable of being customized by the content provider, wherein the customizable settings provide an address of at least one content page in the data repository and a parameter for the address locations;

accessing the content page at the addressable location at the content provider's data repository indicated in the customizable settings;

processing the accessed content page using the parameter provided for the addressable location of the accessed content page to generate output information; and

generating metadata indicating the generated output information for the accessed content page to add to an index of metadata for accessed addressable locations at the data repository, wherein customizable settings from the different content providers are accessed to generate the metadata for the accessed content pages, and wherein the index of metadata includes metadata on content from the data repositories of the different content providers.

2. (Previously Presented) The method of claim 1, wherein the customizable settings include parameters and access methods unique to an arrangement of content in the content provider's data repository, wherein the access methods process the accessed content page using the parameter.

#### 3. Cancelled

4. (Original) The method of claim 3, wherein the addressable locations comprise uniform resource locator (URL) addresses.

5. (Currently Amended) The method of claim 1, wherein the parameters in the accessed customizable settings comprise query terms for at least one included addressable location, further comprising:

for each provided addressable location for which there are query terms, using the provided query terms at the provided addressable location to obtain query results; and generating metadata from the obtained query results to add to the index of metadata for accessed addressable locations at the data repository.

6. (Original) The method of claim 5, wherein the accessed customizable settings further provide qualifiers for at least one search term, further comprising:

for each query term having at least one qualifier, determining whether the query results for the query term satisfy each qualifier for the query term, wherein the metadata for the query result is generated if the query result satisfies each qualifier for the query term that generated the query result; and

performing a non-qualifying action for each query result that does not satisfy each qualifier.

- 7. (Original) The method of claim 6, wherein the non-qualifying action comprises not including metadata for the query result in the index.
- 8. (Previously Presented) The method of claim 1, wherein the parameters in the accessed customizable settings further include a password for at least one provided addressable location, further comprising:

using the provided password to access the content page at the indicated addressable location for which the password is provided.

9. (Previously Presented) The method of claim 1, wherein the parameters in the accessed customizable settings further include a recursive search setting indicating whether to search hypertext links to linked addressable locations included in the accessed content page, further comprising:

accessing a content page at each linked addressable location included if the recursive search setting indicates to recursively search linked addressable locations, wherein metadata is generated for each content page recursively accessed at the linked addressable locations in the accessed content page.

- 10. (Original) The method of claim 9, wherein the accessed customizable settings further provide prohibited addressable locations at the data repository, wherein metadata is not generated for each content page at a linked addressable location that is one indicated prohibited address location.
- 11. (Original) The method of claim 1, wherein the accessed customizable settings further indicate validation checking programs, further comprising:

executing each validation checking program indicated in the accessed customizable settings against each accessed content page;

generating a validation output result with the validation checking program for each accessed content page with each validation checking program describing characteristics of the content page;

generating metadata from the validation output result to add to the index of metadata for accessed addressable locations at the data repository.

12. (Original) The method of claim 11, wherein the accessed customizable settings further indicate at least one parameter to use with at least one validation checking program, further comprising:

using the at least one parameter when executing the validation checking program, wherein the validation output result further indicates characteristics of the content page related to the at least one parameter used with the validation checking program.

13. (Previously Presented) The method of claim 11, wherein the parameters in the accessed customizable settings further indicate at least one qualifier to use with at least one validation checking program, further comprising:

determining whether the validation output result satisfies the at least one qualifier provided with the validation checking program producing the output result, wherein metadata for the output result is included in the index if the output result satisfies the qualifier.

- 14. (Original) The method of claim 13, wherein metadata for the content page at the addressable location is not included in the index if the validation output result does not satisfy the qualifier.
- 15. (Original) The method of claim 1, further comprising:

  determining a format of the accessed content page;

  selecting one of a plurality parsers capable of parsing the determined format; and

  parsing the content page using the selected parser, wherein the metadata to add to the

  index is generated from the parsed content page.
  - 16. (Original) The method of claim 1, further comprising: determining a parser capable of parsing an embedded file referenced in the content page; parsing the content of the referenced embedded file; and generating metadata for the parsed content of the embedded file to add to the index.
- 17. (Previously Presented) The method of claim 16, wherein the embedded file is encoded in a multimedia format.
- 18. (Original) The method of claim 1, further comprising:
  distributing a collection tool to content providers capable of accessing and generating
  metadata for content provider data repositories using the accessed customizable settings; and
  collecting metadata data gathered from multiple content providers using the collection
  tool to gather metadata on their data repositories;
- 19. (Original) The method of claim 18, further comprising commercializing the collected metadata.

- 20. (Original) The method of claim 18, further comprising:
  receiving an electronic subscription from content providers to use the collection tool and provide metadata.
- 21. (Previously Presented) A system for searching data repositories managed by different content providers to gather indexable metadata on content at addresses locations at the data repositories, comprising:

means for accessing customizable settings capable of being customized by the content provider, wherein the customized settings provide an address of at least one content page in the data repository and a parameter for the address locations;

means for accessing the content page at the addressable location at the content provider's data repository indicated in the customizable settings;

means for processing the accessed content page using the parameter provided for the addressable location of the accessed content page to generate output information; and

means for generating metadata indicating the generated output information for the accessed content page to add to an index of metadata for accessed addressable locations at the data repository, wherein customizable settings from the different content providers are accessed to generate the metadata for the accessed content pages, and wherein the index of metadata includes metadata on content from the data repositories of the different content providers.

22. (Previously Presented) The system of claim 21, wherein the customizable settings include parameters and access methods unique to an arrangement of content in the content provider's data repository, wherein the access methods process the accessed content page using the parameter.

#### 23. (Cancelled)

24. (Original) The system of claim 23, wherein the addressable locations comprise uniform resource locator (URL) addresses.

25. (Previously Presented) The system of claim 21, wherein the parameters in the accessed customizable settings comprise query terms for at least one included addressable location, further comprising:

means for using the provided query terms at the provided addressable location to obtain query results for each provided addressable location for which there are query terms; and

means for generating metadata from the obtained query results to add to the index of metadata for accessed addressable locations at the data repository.

26. (Original) The system of claim 25, wherein the accessed customizable settings further provide qualifiers for at least one search term, further comprising:

means for determining whether the query results for the query term satisfy each qualifier for the query term for each query term having at least one qualifier, wherein the metadata for the query result is generated if the query result satisfies each qualifier for the query term that generated the query result; and

means for performing a non-qualifying action for each query result that does not satisfy each qualifier.

- 27. (Original) The system of claim 26, wherein the non-qualifying action comprises not including metadata for the query result in the index.
- 28. (Previously Presented) The system of claim 21, wherein the parameters in the accessed customizable settings further include a password for at least one provided addressable location, further comprising:

means for using the provided password to access the content page at the indicated addressable location for which the password is provided.

29. (Previously Presented) The system of claim 21, wherein the parameters in the accessed customizable settings further include a recursive search setting indicating whether to search hypertext links to linked addressable locations included in the accessed content page, further comprising:

means for accessing a content page at each linked addressable location included if the recursive search setting indicates to recursively search linked addressable locations, wherein metadata is generated for each content page recursively accessed at the linked addressable locations in the accessed content page.

- 30. (Original) The system of claim 29, wherein the accessed customizable settings further provide prohibited addressable locations at the data repository, wherein metadata is not generated for each content page at a linked addressable location that is one indicated prohibited address location.
- 31. (Original) The system of claim 21, wherein the accessed customizable settings further indicate validation checking programs, further comprising:

means for executing each validation checking program indicated in the accessed customizable settings against each accessed content page;

means for generating a validation output result with the validation checking program for each accessed content page with each validation checking program describing characteristics of the content page; and

means for generating metadata from the validation output result to add to the index of metadata for accessed addressable locations at the data repository.

32. (Original) The system of claim 31, wherein the accessed customizable settings further indicate at least one parameter to use with at least one validation checking program, further comprising:

means for using the at least one parameter when executing the validation checking program, wherein the validation output result further indicates characteristics of the content page related to the at least one parameter used with the validation checking program.

33. (Original) The system of claim 31, wherein the accessed customizable settings further indicate at least one qualifier to use with at least one validation checking program, further comprising:

means for determining whether the validation output result satisfies the at least one qualifier provided with the validation checking program producing the output result, wherein metadata for the output result is included in the index if the output result satisfies the qualifier.

- 34. (Original) The system of claim 33, wherein metadata for the content page at the addressable location is not included in the index if the validation output result does not satisfy the qualifier.
- 35. (Original) The system of claim 21, further comprising:
  means for determining a format of the accessed content page;
  means for selecting one of a plurality parsers capable of parsing the determined format;
  and

means for parsing the content page using the selected parser, wherein the metadata to add to the index is generated from the parsed content page.

36. (Original) The system of claim 21, further comprising:
means for determining a parser capable of parsing an embedded file referenced in the content page;

means for parsing the content of the referenced embedded file; and means for generating metadata for the parsed content of the embedded file to add to the index.

- 37. (Original) The system of claim 36, wherein the embedded file is encoded in a multimedia format.
  - 38. (Original) The system of claim 22, further comprising:

means for distributing a collection tool to content providers capable of accessing and generating metadata for content provider data repositories using the accessed customizable settings; and

means for collecting metadata data gathered from multiple content providers using the collection tool to gather metadata on their data repositories;

39. (Previously Presented) A program for searching data repositories managed by different content providers to gather indexable metadata on content at addresses locations at the data repositories, wherein the program comprises code implemented in a computer readable medium capable of causing a computer to perform:

accessing customizable settings capable of being customized by the content provider, wherein the customizable settings provide an address of at least one content page in the data repository and a parameter for the address locations;

accessing the content page at the addressable location at the content provider's data repository indicated in the customizable settings;

processing the accessed content page using the parameter provided for the addressable location of the accessed content page to generate output information; and

generating metadata indicating the generated output information for the accessed content page to add to an index of metadata for accessed addressable locations at the data repository, wherein customizable settings from the different content providers are accessed to generate the metadata for the accessed content pages, and wherein the index of metadata includes metadata on content from the data repositories of the different content providers.

40. (Currently Amended) The method of claim 39, wherein the customized settings include parameters and access methods unique to an arrangement of content in the content provider's data repository, wherein the access methods process the accessed content page using the parameter.

### 41. (Cancelled)

- 42. (Original) The program of claim 41, wherein the addressable locations comprise uniform resource locator (URL) addresses.
- 43. (Previously Presented) The program of claim 39, wherein the parameters in the accessed customizable settings comprise query terms for at least one included addressable location, wherein the program is further capable of causing the computer to perform:

for each provided addressable location for which there are query terms, using the provided query terms at the provided addressable location to obtain query results; and generating metadata from the obtained query results to add to the index of metadata for accessed addressable locations at the data repository.

44. (Original) The program of claim 43, wherein the accessed customizable settings further provide qualifiers for at least one search term, wherein the program is further capable of causing the computer to perform:

for each query term having at least one qualifier, determining whether the query results for the query term satisfy each qualifier for the query term, wherein the metadata for the query result is generated if the query result satisfies each qualifier for the query term that generated the query result; and

performing a non-qualifying action for each query result that does not satisfy each qualifier.

- 45. (Original) The program of claim 44, wherein the non-qualifying action comprises not including metadata for the query result in the index.
- 46 (Previously Presented) The program of claim 39, wherein the parameters in the accessed customizable settings further include a password for at least one provided addressable location, wherein the program is further capable of causing the computer to perform:

using the provided password to access the content page at the indicated addressable location for which the password is provided.

47. (Previously Presented) The program of claim 39, wherein the parameters in the accessed customizable settings further include a recursive search setting indicating whether to search hypertext links to linked addressable locations included in the accessed content page, wherein the program is further capable of causing the computer to perform:

accessing a content page at each linked addressable location included if the recursive search setting indicates to recursively search linked addressable locations, wherein metadata is

generated for each content page recursively accessed at the linked addressable locations in the accessed content page.

- 48. (Original) The program of claim 47, wherein the accessed customizable settings further provide prohibited addressable locations at the data repository, wherein metadata is not generated for each content page at a linked addressable location that is one indicated prohibited address location.
- 49. (Original) The program of claim 39, wherein the accessed customizable settings further indicate validation checking programs, wherein the program is further capable of causing the computer to perform:

executing each validation checking program indicated in the accessed customizable settings against each accessed content page;

generating a validation output result with the validation checking program for each accessed content page with each validation checking program describing characteristics of the content page;

generating metadata from the validation output result to add to the index of metadata for accessed addressable locations at the data repository.

50. (Original) The program of claim 49, wherein the accessed customizable settings further indicate at least one parameter to use with at least one validation checking program, wherein the program is further capable of causing the computer to perform:

using the at least one parameter when executing the validation checking program, wherein the validation output result further indicates characteristics of the content page related to the at least one parameter used with the validation checking program.

51. (Original) The program of claim 49, wherein the accessed customizable settings further indicate at least one qualifier to use with at least one validation checking program, wherein the program is further capable of causing the computer to perform:

determining whether the validation output result satisfies the at least one qualifier provided with the validation checking program producing the output result, wherein metadata for the output result is included in the index if the output result satisfies the qualifier.

- 52. (Original) The program of claim 51, wherein metadata for the content page at the addressable location is not included in the index if the validation output result does not satisfy the qualifier.
- 53. (Original) The program of claim 39, wherein the program is further capable of causing the computer to perform:

determining a format of the accessed content page;

selecting one of a plurality parsers capable of parsing the determined format; and parsing the content page using the selected parser, wherein the metadata to add to the index is generated from the parsed content page.

54. (Original) The program of claim 39, wherein the program is further capable of causing the computer to perform:

determining a parser capable of parsing an embedded file referenced in the content page; parsing the content of the referenced embedded file; and generating metadata for the parsed content of the embedded file to add to the index.

- 55. (Original) The program of claim 54, wherein the embedded file is encoded in a multimedia format.
  - 56. (Original) The program of claim 39, further comprising:

distributing the program to content providers capable of accessing and generating metadata for content provider data repositories using the accessed customizable settings; and collecting metadata data gathered from multiple content providers using the collection

tool to gather metadata on their data repositories;

57. (Original) The program of claim 56, further comprising:

receiving an electronic subscription from content providers to use the program to gather and provide metadata.